U. S. DEPARTMENT OF COMMERCE
BUREAU OF STANDARDS

MOPSTICKS

COMMERCIAL STANDARD CS2–30

ELIMINATION OF WASTE
Through
SIMPLIFIED COMMERCIAL PRACTICE

Below are described some of the series of publications of the Department of Commerce which deal with various phases of waste elimination.

Simplified Practice Recommendations.

These present in detail the development of programs to eliminate unnecessary variety in sizes, dimensions, styles, and types of over 100 commodities. They also contain lists of associations and individuals who have indicated their intention to adhere to the recommendations. These simplified schedules, as formulated and approved by the industries, are indorsed by the Department of Commerce.

Commercial Standards.

These are developed by various industries under a procedure similar to that of simplified practice recommendations. They are, however, primarily concerned with considerations of grade, quality, and such other characteristics as are outside the scope of dimensional simplification.

American Marine Standards.

These are promulgated by the American Marine Standards Committee, which is controlled by the marine industry and administered as a unit of the division of simplified practice. Their object is to promote economy in construction, equipment, maintenance, and operation of ships. In general, they provide for simplification and improvement of design, interchangeability of parts, and minimum requisites of quality for efficient and safe operation.

Lists of the publications in each of the above series can be obtained by applying to the National Bureau of Standards, Washington, D. C.

U. S. DEPARTMENT OF COMMERCE
R. P. LAMONT, Secretary
BUREAU OF STANDARDS
GEORGE K. BURGESS, Director

MOPSTICKS

COMMERCIAL STANDARD CS2–30

ISSUED DECEMBER 23, 1930

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ACCEPTORS

ASSOCIATIONS

American Hospital Association, Chicago, Ill.
American Hotel Association, New York, N. Y.
National Association of Wood Turners (Inc.), The, South Bend, Ind. (in principle).
National Hardware Association of the United States, Philadelphia, Pa.
National Retail Hardware Association, Indianapolis, Ind.
National School Supply Association, Chicago, Ill.
New England Council, Boston, Mass. (in principle).
Ohio Hardware Association, The, Dayton, Ohio.
Pennsylvania, New Jersey & Delaware Wholesale Grocer's Association, Philadelphia, Pa.
Southern Hardware Jobbers Association, New Orleans, La.
West Virginia Hardware Association, Dayton, Ohio.

FIRMS

American Standard Manufacturing Co., Chicago, Ill.
Arcade Manufacturing Co., Freeport, Ill.
Barber & Sons Manufacturing Co. (Inc.), L. S., Butternut, Wis.
Campbell Wood Products Co., New York, N. Y.
Canada Broom Handle Co., Burlington, Vt. (in principle).
Carnation Co., Oconomowoc, Wis.
Dayton Handle & Golf Co., The, Dayton, Ohio.
Department of Purchases and Supplies, Detroit, Mich.
Dougherty & Sons (Inc.), W. F., Philadelphia, Pa.
Dunham Carrigan & Hayden Co., San Francisco, Calif.
Ely Manufacturing Co., Theo. J., Girard, Pa.
Erie Mop & Wringer Co., East Rochester, N. Y.
Gould & Co., L., Chicago, Ill.
Haines & Co., J. J., Baltimore, Md.
Hardwood Manufacturing Co., Dublin, Ga.
Haskew & Co. (Inc.), S. J., Jackson, Tenn.
Howell Bros., Richmond, Va.
Hygenia Brush Co., Worcester, Mass.
Kautenberg Co. (Inc.), W. E., Freeport, Ill.
Keystone Stamping Corporation, Irvington, N. J.
Malleable Iron Fittings Co., Branford, Conn.
Merwin Manufacturing Co., Erie, Pa.
Monarch Products Co., The, Tiffin, Ohio.
National Handle Co., The, Cleveland, Ohio.
Porter Co., C. B., Philadelphia, Pa.
Rittenhouse Manufacturing Co., J. F., Akron, Ind.
Silver-Chamberlin Co., Clayton, N. J.
Standard Supply Co., New York, N. Y.
Stiles & Co., H. A., Boston, Mass. (in principle).
Stover Manufacturing & Engine Co., Freeport, Ill.
Toledo Washer & Stamping Co., The, Toledo, Ohio. (in principle).
Van Pelt, W. J., New York, N. Y.
Westcott & Son, J. D., Union City, Pa.
White Wood Products Co., Bogalusa, La.
Williams Co., The Geo. L., Cleveland, Ohio.

GOVERNMENT

Post Office Department, Washington, D. C.
Public Buildings and Public Parks of the National Capital, Washington, D. C.
Purchasing Officer, Government of the District of Columbia, Washington, D. C.
Treasury Department, Washington, D. C.
Veterans Bureau, Washington, D. C.
War Department, Washington, D. C.

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MOPSTICKS

COMMERCIAL STANDARD CS2–30

On July 17, 1930, a commercial standard for mopsticks was adopted at a conference to which all interests were invited. The industry has since accepted and approved for promulgation by the Department of Commerce the specifications shown herein.

The standard is effective for new production October 15, 1930.

Promulgation recommended.

I. J. Fairchild,
Chief, Division of Trade Standards.

Promulgated.

George K. Burgess,
Director, Bureau of Standards.

Approved.

R. P. Lamont,
Secretary of Commerce.

COMMERCIAL STANDARD CS2–30

I. SCOPE

This commercial standard is a minimum specification for mop sticks used in domestic, janitor, and like service.

II. GENERAL REQUIREMENTS

All commercial standard mopsticks shall be neatly made of well-selected materials. The handles shall be straight and smoothly turned. The metal portions shall be well secured and free from burs or roughened spots that may scratch the hands of the user or entangle the mop. All stampings shall be coated or plated after forming.

III. DETAIL REQUIREMENTS

The various types of mopsticks are illustrated in Figure 1.

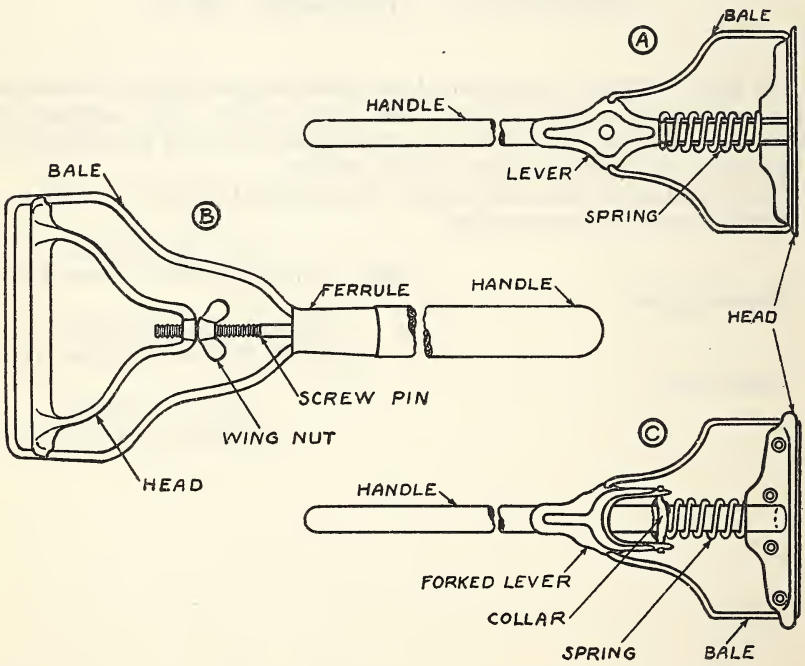

FIGURE 1.—*Types of mopsticks*

A, Spring lever type (without collar). *B*, Janitors' screw type. *C*, Spring lever type (with collar).

DOMESTIC SIZE—SPRING LEVER TYPE

Handle.—The handle may be made of any suitable wood, it shall be smoothly turned, sanded, and wax finished.

Diameter.—⅞ inch, a minus tolerance of 1/32 inch is allowable.

Length.—48 inches, a minus tolerance of 2 inches is allowable.

Metal Fixtures

Head.—The head shall be made of cast or malleable iron or pressed steel. If pressed steel is used it shall be not lighter than No. 24 gage (0.0245 inch) when used double thickness, and No. 22 gage (0.0306 inch) when used single thickness. The head shall be securely fastened to the handle by a nail, screw, staple, or by clamping a portion of the head into the handle.

Spring.—The spring shall be of 11 gage (0.1205 inch) spring steel wire of sufficient stiffness to securely hold the mop in place.

Lever.—The lever shall be made of No. 20 gage (0.0368 inch) pressed steel which may be attached directly to the spring or to the collar.

Domestic Size—Metal Fixtures

Bale.—The bale shall be made of No. 9 (0.1483 inch) steel wire. The inside width shall be 5⅝ inches with a minus tolerance of ⅛ inch. The bale shall open at least 1¼ inches for insertion of the mop.

Collar.—The collar may be of cast or malleable iron or pressed steel.

Coating.—The head, lever, and collar shall be given a copper sulphate (blue vitriol) dip after forming.

The spring and bale shall be of mill-coppered wire.

JANITOR SIZE—SPRING LEVER TYPE

Handle.—The handle may be of any suitable wood, it shall be smoothly turned, sanded, and wax finished.

Diameter.—1⅛ inches; a minus tolerance of 1/32 inch is allowable.

Length.—54 inches; a minus tolerance of 2 inches is allowable.

Metal Fixtures

Head.—The head shall be made of cast or malleable iron or pressed steel. If pressed steel is used it shall not be lighter than No. 20 gage (0.0368 inch) when used double thickness and No. 18 gage (0.0490 inch) when single thickness. The head shall be properly secured by a nail, screw, staple, or by clamping a portion of the head into the handle.

Spring.—The spring shall be of No. 10 (0.1350 inch) spring steel wire of sufficient stiffness to securely hold the mop in place.

Lever.—The lever shall be made of pressed steel which may be attached directly to the spring or to the collar. A No. 18 gage (0.0490 inch) steel may be used if embossed for added strength, while a No. 16 gage (0.0613 inch) steel shall be used if plain.

Bale.—The bale shall be made of No. 7 (0.1770 inch) steel wire. The inside width shall be 6½ inches with a minus tolerance of ⅛ inch. The bale shall open at least 1¼ inches for insertion of the mop.

Collar.—The collar may be of cast or malleable iron or pressed steel.

Coating.—The head, lever, and collar shall be given a copper sulphate (blue vitriol) dip after forming.

The spring and bale shall be of mill-coppered wire.

JANITORS'—SCREW TYPE

Handle.—The handle may be of any suitable wood, it shall be smoothly turned, sanded, and wax finished.

Diameter.—1⅛ inches; a minus tolerance of 1/32 inch is allowable.

Length.—54 inches; a minus tolerance of 2 inches is allowable.

Metal Fixtures

Bale.—The bale shall be of No. 3 (0.2437 inch) steel wire securely fastened in the handle in any approved manner and strengthened with a steel, cast or malleable iron ferrule. It shall have an inside dimension of 6½ inches with a minus tolerance of ⅛ inch. The bale shall open at least 1½ inches for insertion of the mop.

Head.—The head shall be of cast or malleable iron or No. 18 gage (0.0490 inch) pressed steel.

Screw pin.—The screw pin shall be of steel, threaded to accommodate a ⅜ inch wing nut provided for adjustment of the head.

Finish.—The head, bale, and ferrule shall be japanned. The screw pin and wing nut shall be given a plating of cadmium, zinc, or nickel.

GENERAL CONFERENCE

Pursuant to a request of the National Association of Mop Stick Manufacturers, a general conference was held in Cleveland, Ohio, on July 17, 1930, to which were invited all those thought to be interested in the production, sale, and use of mopsticks.

This conference held under the auspices of the division of trade standards, National Bureau of Standards, was presided over by Harry H. Steidle, and Wm. A. Babbitt, manager of the National Association of Mop Stick Manufacturers, briefly outlined the desirability of uniform quality standards as a base line of operations for the mopstick industry.

The proposed commercial standard specifications were thoroughly discussed and several minor changes were made.

Upon motion by L. L. Munn, seconded by C. M. Hutchinson, it was voted:

To approve the specifications as corrected and to recommend them to the industry for formal acceptance as the standard of quality for the mopstick industry.

STANDING COMMITTEE AND EFFECTIVE DATE

A standing committee was appointed to represent the various interests of the mopstick industry and to receive all comments and suggestions for the improvement of the commercial standard specifications. No definite interval was fixed for revision of the standard, but the committee will meet at the call of the chairman when revision appears necessary.

The standing committee consists of the following:

B. L. Conchar, Keystone Stamping Corporation, Irvington, N. J. (chairman).
L. L. Munn, Arcade Manufacturing Co., Freeport, Ill.
C. M. Hutchinson, Erie City Manufacturing Co., Erie, Pa.
Augustus Nulle, American Hotel Association, New York, N. Y
Joseph E. Mills, National Association of Purchasing Agents, Detroit, Mich.
Mrs. Arch Trawick, General Federation of Women's Clubs, Nashville, Tenn.
Charles E. Krebs, American Standard Manufacturing Co., Chicago, Ill.
Harry H. Steidle, Bureau of Standards, Washington, D. C. (ex officio, secretary).

The conference voted that the commercial standard be made effective 30 days after announcement of formal acceptance of the standard. Formal acceptance was announced on September 15, 1930, and the effective date was accordingly set at October 15, 1930.

CERTIFICATION PLAN

The conference voted its approval of the certification plan for application to mopsticks made in accordance with the commercial standard specifications. The certification plan as applied by the National Bureau of Standards to commercial standards consists in the compilation and distribution of lists of manufacturers who are willing, when requested to do so, to certify to purchasers that products supplied by them comply with all the requirements and tests set forth in nationally recognized commercial standards. The plan is also applied to selected Federal specifications. These lists are available on request to individual consumers, consumer groups, companies, and in fact to any prospective purchasers, for their guidance.

The benefits now derived from the use of specifications by large consumers are thus made immediately available to the small consumer, with incidental advantage to the larger consumers of convenience in ordering and accepting material with fewer laboratory tests. The manufacturer also benefits from the well-known economies accompanying "mass production."

The lists of manufacturers "willing to certify" to the quality of certain commodities are made by corresponding with, as nearly as possible, all the manufacturers of that product and listing only those who signify their willingness to certify to the purchaser, when requested to do so, that the commodities delivered actually comply with the commercial standard. Obviously, the purchaser making use of the lists of "willing to certify" manufacturers will select therefrom such manufacturers as are known (or assumed) by him to be reliable.

The trend toward the purchase of materials of certified quality from sources shown on such willing to certify lists supplies added incentive to standardization on the part of other producers, and thus the benefits of the certification plan will be felt by purchasers either directly or indirectly, whether or not they make use of the plan themselves.

COMMERCIAL STANDARDS SERVICE

Industry has long sensed the need for a wider application and use of specifications developed and approved by nationally recognized organizations. To assist these bodies and the producers and consumers in securing this result and as a natural outgrowth of the movement toward elimination of waste through simplified practice, the National Bureau of Standards has set up a procedure under which specifications, properly indorsed, may be printed as official publications of the Department of Commerce and promulgated as "commercial standards." This service parallels that of simplified practice in many respects and is available only upon request.

Broadly speaking, the aim is to continue the same character of cooperative service in this field that is being rendered in simplification. The division of trade standards is not designed to act as a standardizing body, nor will it engage in the preparation of specifications. Its service is mainly promotional in character, since its chief mission is to invite attention to a standard or a specification which any branch of industry may want to promulgate on a nation-

wide basis; to determine its eligibility for promulgation; to publish and broadcast it in the event the prerequisites of procedure have been met, including a satisfactory majority acceptance; to facilitate the application of the certification plan for the assurance and convenience of the purchaser; to provide means for periodic audits of adherence; and to cooperate with the Bureau of Foreign and Domestic Commerce in determining the desire of industry relative to translation and promulgation of such specifications as a basis for foreign commerce.

In general, it may be said that a simplification covers types, sizes, and varieties of a commodity which are retained by industry on the basis of demand, whereas a commercial standard establishes definite requirements as to grade, quality, or dimensional tolerances in addition to any limitation of variety desired and accepted by the industry.

ORGANIZATION AND DUTIES OF STANDING COMMITTEE

In order to carry on the aims and desires of the industry in the standardization of their product, a standing committee is appointed at the general conference. This committee consists of members from each division of the industry, namely, producers, distributors, and consumers, and thus reflects the well-balanced viewpoint of all concerned. The members of the committee receive all suggestions regarding the commercial standard and consider its revision in the event that such action is desirable and mutually beneficial. If the commercial standard does not warrant revision, it is reaffirmed in its existing form, but if any important changes are found desirable, their adoption is recommended by the committee, whereupon the industry is again solicited for written acceptance of the standard in its revised form.

The committee is in effect a centralizing agency for criticisms and comments regarding the commercial standard and is charged with the responsibility of recommending revisions to keep the standard abreast with current industrial practice. The proper functioning of the committee requires that, when necessary, its members be willing to attend meetings held at some central place, although in many cases it will be possible to conduct the work by correspondence.

When any deceptions in reference to the commercial standard are reported to the standing committee, it applies moral suasion or such other corrective measures as seem desirable. The Department of Commerce has no "police power" to compel adherence, therefore it is incumbent upon the standing committee to do all in its power to encourage all divisions of the industry to follow the provisions of the commercial standard and contribute in every way possible to its general adoption and usefulness.

YOUR COOPERATION

As a producer, distributor, or consumer of some of the commodities for which commercial standards have already been established, you are in a position to avail yourself of the benefits arising from the use of quality standards and incidentally to add impetus to this method of eliminating waste. The first step is a declaration in favor of the standard by recording your intentions to adhere, as closely as circum-

stances will allow, to the standards for those products which you may buy or sell. The receipt of your signed acceptance will permit the listing of your company in new editions of the commercial standards that you accept.

You will, of course, want to examine any commercial standards before signing a formal acceptance. The National Bureau of Standards will therefore furnish a copy of any standard under consideration for acceptance. To facilitate this procedure, a list appears on page 12 that may be checked and mailed to the Division of Trade Standards, National Bureau of Standards, Washington, D. C. The publications may also be secured singly or in quantities at a nominal price from the Government Printing Office. Prices will be furnished upon request.

The acceptance of a commercial standard is an entirely voluntary action and applies to the production, sale, and use of stock items. It is not meant to interfere with the introduction, manufacture, or sale of special sizes and types sometimes required.

Trade associations and individual companies often distribute large numbers of the printed standard for the information and guidance of their members or customers. In such cases it is possible to extend the scope and degree of adherence by urging each recipient to send in an acceptance, bearing in mind that the practical value of any standardization is measured by the observance it receives.

An acceptance form for the commercial standard herein covered is included on page 9.

ACCEPTANCE OF COMMERCIAL STANDARD

Please sign and return this sheet to Division of Trade Standards, Bureau of Standards, Washington, D. C.

Date _____

DIVISION OF TRADE STANDARDS,
NATIONAL BUREAU OF STANDARDS,
Washington, D. C.

GENTLEMEN: We, the undersigned, do hereby accept the original draft of the commercial standard as our standard practice in the {Production [1] / Distribution [1] / Use [1]} of mopsticks beginning _____ (Date.), and will use our best effort in securing its general adoption.

To permit intelligent review of the effectiveness of the commercial standard every year by an accredited committee of all interests, working in cooperation with the Department of Commerce, we plan to supply all data, upon request, which may be necessary for the development of constructive revisions. It is understood that any suggested modifications will be submitted as soon as formulated, and shall not be promulgated until accepted in form similar to this recommendation.

(Cut on this line)

Signature _____
(Kindly typewrite or print the following lines)

Title _____

Company _____

Street address _____

City and State _____

We are members of the following associations or other organizations interested in the production, sale, or use of mopsticks:

_____

_____

_____

[1] Please designate which group you represent by drawing lines through the other two. In the case of related interests, trade papers, colleges, etc., desiring to record their general approval, the words "in principle" should be added after the signature.

TO THE ACCEPTOR

In signing the acceptance blank, please bear the following points clearly in mind:

1. *Adherence.*—The Department of Commerce has no regulatory powers to enforce adherence to the commercial standards. Instead, this waste-elimination program is based on voluntary cooperation and self-government in industry. To make this specific standardization operate as a satisfactory example of self-government, it is highly desirable that it be kept distinct from any plan or method of governmental regulation or control. It will be successful according to the degree to which manufacturers, distributors, and purchasers adhere to its terms and conditions.

2. *The industry's responsibility.*—The department cooperates only on the request of the industry and assumes no responsibility for industrial acceptance or adherence. This program was developed by the industry on its own initiative. Its success depends wholly on the active cooperation of those concerned.

3. *The acceptor's responsibility.*—You are entering into an entirely voluntary arrangement, whereby the members of the industry—the distributors and consumers of the product, and others concerned—hope to secure the benefits inherent in commercial standardization. Those responsible for this standard realize that instances may occur in which it will be necessary to supply or purchase items not included therein. The purpose is, however, to secure wider support for nationally recognized standards covering grade, quality, and other characteristics of products. Consumers can make the program a success if, in their purchasing, they will make a definite and conscientious effort to specify in terms of this commercial standard.

4. *The department's responsibility.*—The function performed by the Department of Commerce is fourfold: First, to act as a referee to insure adequate consideration of the needs of all interests; second, to supply such assistance and advice in the development of this program as past experience with similar programs may suggest; third, to solicit and record the extent of adoption and adherence to the standard; and fourth, to add all possible prestige to this standardization movement by publication and promulgation if and when it is adopted and accepted by all elements directly concerned.

CS2–30

REQUEST FOR COMMERCIAL STANDARDS

Date _____

DIVISION OF TRADE STANDARDS,
NATIONAL BUREAU OF STANDARDS,
Washington, D. C.

GENTLEMEN: The undersigned wishes to examine the commercial standards checked on the reverse side of this page, with a view toward accepting them as our standard of practice in the production, distribution, or consumption of the standardized lines.

(Cut on this line)

Signed _____
(Kindly typewrite or print the following lines)

Title _____

Company _____

Street address _____

City and State _____

COMMERCIAL STANDARDS

CS. No.	Item
0-30.	The commercial standards service and its value to business.
1-28.	Clinical thermometers.
2-30.	Mopsticks.
3-28.	Stoddard solvent.
4-29.	Staple porcelain (all-clay) plumbing fixtures.
5-29.	Steel pipe nipples.
6-29.	Wrought-iron pipe nipples.
7-29.	Standard weight malleable iron or steel screwed unions.
8-30.	Plain and thread plug and ring gage blanks.
9-29.	Builders' template hardware.
10-29.	Brass pipe nipples.
11-29.	Regain of mercerized cotton yarns.
12-29.	Domestic and industrial fuel oils.
13-30.	Dress patterns.
14-31.	Boys' blouses, button-on waists, shirts, and junior shirts (in preparation).
15-29.	Men's pajamas.
16-29.	Wall paper.
17-30.	Diamond core drill fittings.
18-29.	Hickory golf shafts.
19-30.	Foundry patterns of wood.
20-30.	Staple vitreous china plumbing fixtures.
21-30.	Interchangeable ground glass joints.
22-30.	Builders' hardware (nontemplate).
23-30.	Feldspar.
24-30.	Standard screw threads.
25-30.	Special screw threads.
26-30.	Aromatic red-cedar closet (lining).
27-30.	Plate-glass mirrors (in preparation).